REMARKS/ARGUMENTS

The present amendment is submitted in response to the Office Action dated November 10, 2008, which set a three-month period for response, making this amendment due by February 10, 2009.

Claims 7-12 are pending in the application.

In the Office Action, claims 10-12 were rejected under 35 U.S.C. 101 on grounds they are hybrid claims with both apparatus and method limitations. Claims 7-12 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Claims 7-9 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claims 7, 8, 10, 11 and 12 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,282,469 to Skonberg in view of U.S. Patent No. 7,211,770 to Wilson and U.S. Patent No. 2,560,795 to Harris. Claim 9 was rejected under 35 U.S.C. 103(a) as being unpatentable over Skonberg in view of Wilson and Harris and further in view of U.S. Patent No. 4,534,493 to Sedran.

In the present amendment, method claim 10 has been amended to add the structural features of the apparatus of claim 7 to address the rejection under Section 101.

Regarding the rejection of claim 7 under Section 112, first paragraph, for lack of enablement, the Applicant respectfully disagrees that the language of this claim is not adequately disclosed. On page 3, second paragraph, of the present application, it is clearly disclosed that the vertical rods 6 are not heated. Claim 7 therefore has been amended to recite that the rods "are not heated".

With regard to the further rejection of claim 7 as indefinite under Section 112, second paragraph, the language of method claims 10 and 12 provide language as to how the second thermal sensor interacts with the first thermal sensor and the heating element composed of armored resistors. Specifically, the second thermal sensor is mounted on the vertical rods (as defined in claim 7) at approximately one third of their height as measured from a bottom thereof. After the entire mass of the lubricant has been melted, the second sensor maintains the heating element at the claimed maintenance temperature. Inclusion of these narrower limitations from the method claims, however, is not needed in claim 7 to render that claim definite under Section 112, second paragraph.

Turning now to the substantive rejections of the claims, the Applicant respectfully disagrees that the cited combination of the Skonberg, Wilson and Harris patents renders obvious the subject matter of claims 7, 8, and 10-12.

Skonberg discloses a heated dispensing means 10 which is employed to dispense material from a shipping container 11. Dispensing means 10 includes a bottom plate 12 which is adapted to set upon a floor and which is further adapted to receive shipping container 11 thereupon. A pair of uprights 13 and 14, which are interconnected by means of rigid brace 15, extend upwardly from and are rigidly secured to the bottom plate 12. The plate 12, uprights 13 and 14 and rigid brace 15 are all suitably secured together to form a rigid stationary assembly (see Skonberg, column 2, lines 15 to 26).

This type of a rigid stationary assembly is not disclosed or claimed by the present application. Claim 7 defines a heating element (1) comprising armored resistors shaped as concentric rings and junction spokes, a hoist (2) bearing the

heating element (1), non-heated vertical rods (6), which connect the heating element (1) which is movable in vertical direction to load bearing arms, a first thermal sensor (5), a second thermal sensor (7) mounted on the vertical rods (6), etc.

The Applicant respectfully disagrees with the Examiner's analysis that the term "embedded" means the same as "armored". The meaning of "embed (in)" (usually passive) is to fix firmly in a surrounding mass, while "armor" has the meaning of a defensive covering. The essential elements or features of the present invention are not disclosed by Skonberg although such elements as a transfer pump, a bottom inlet and a delivery tube are common in the relevant field of apparatus for liquefying materials.

The cited patent to Wilson discloses a heat distributor comprised of concentric and dished rings of flattened heating elements issuing from the communication pylon spigot. In contrast, according to the present invention, the heating element is composed of armored resistors shaped as concentric rings and junction spokes.
In addition, Wilson discloses dual self re-setting thermostat units 55, 56 located in the end cap 52 of pylon tube 19 and arranged so as to be in thermal communication with the end cap. The first of these thermostat units is set to cut power to the heating element when the heat transfer from the heated oil around the end cap reaches a predetermined temperature. The second thermostat unit responds to cut power at a significantly higher temperature, acting as a safety back-up to the first thermostat (column 8, lines 43 to 50).

In contrast to Wilson, the present application discloses a method of operation of an apparatus wherein the heating element (1) is set down on the upper surface of solid mass contained in the drum (4) and progressively sinks into it. After reaching

the bottom of the drum (4) and liquefying the entire mass of the product (3), the heating element (1) is kept at a temperature (T1) determined by the first sensor (5) for an additional predetermined time until all the mass is melted. This method is not disclosed by Wilson.

Furthermore, with the present invention, the temperature of the heating element (1) is controlled by means of the first sensor (5) at the temperature (T1) which is predetermined for melting but such as to prevent a harmful overheating of the product (3). Again, this type of operation cannot be derived from Wilson.

In addition, the present application discloses that temperature control for the additional predetermined time passes to the second sensor (7), which is mounted on the vertical rods (6) at about one third of their length starting from the bottom, and which regulates a maintenance temperature (T2). The sensors (5, 7) of the present application cannot be compared with the thermostat units (55, 56) of Wilson as the functioning and operation of the several elements is completely different.

The cited reference to Harris discloses a system in which the flow of lubricating oil from the manually operable lubricator 34 to the housing 18 through the lubrication tube 35 is controlled by a needle valve 43 guided coaxially through the lubricator 34. The lower conical pointed end of the needle valve is adapted to be seated against a centrally apertured conical valve seat 44 when the lubricator is closed against passage of lubricating oil therefrom (column 3, lines 26 to 34). This structure and operation of a needle valve is not disclosed or claimed by the present application, where a bottom valve is used.

The Applicant respectfully submits that it would not be obvious to the practitioner to combine the various embodiments disclosed by Skonberg, Wilson and Harris, described above, since the combination still would omit features recited in claim 7. It is respectfully submitted that since the prior art does not suggest the desirability of the claimed invention, such art cannot establish a prima facie case of obviousness as clearly set forth in MPEP section 2143.01.

With regard to claim 8, the apparatus for moving the heating element including vertical rods (6), components of the hoist (2), transfer pump (8) and suction tube (11) effecting the force of gravity on the heating element is a preferred embodiment of the present invention which is not obvious compared to the complex mechanism of the cited prior art.

Regarding claim 10, the first sensor keeps the heating element (1) at a temperature (T1) for an additional predetermined time until all the mass is melted. This type of operation is not disclosed in any of the cited art.

Claim 11 relates to the temperature of the heating element (1), which is controlled by means of the first sensor (5) at the temperature (T1) predetermined for melting but such as to prevent a harmful overheating of the product. Again this operation cannot be gathered from the prior art.

Likewise, with regard to claim 12, none of the prior art discloses the claimed placement of the thermal sensors (5, 7). For this reason, it is not merely a matter of optimization to place the thermal sensors as claimed. For the regulation of a maintenance temperature (T2) it is essential to arrange the second sensor in the correct place to have implemented a correct control of the maintenance temperature (T2).

The Applicant respectfully submits that the rejection of claim 9, which requires four references to support, fails to establish a prima facie case of obviousness. The fourth cited reference to Sedran discloses in his complex apparatus a heating system which must be capable of quickly melting or highly softening the thermoplastic material in the container so that the screw can "lift" the softened or molten material in the upright cylinder. In preferred embodiments of the heating system, a circular coil system is used in which steam or hot water or some other hot liquid is circulated (column 2, lines 55 to 61). This complex structure is not disclosed in the present application.

Sedran only mentions in column 2, lines 61 to 63, that also electrical heating devices with appropriate heat dissipating fins can be used. The practitioner skilled in the art would not be provided with any information for implementing applicant's structure from only this brief mention of the fact that "electrical heating devices can be used" without any further disclosure.

With regard to the cited references that were made of record and not relied upon, Onken discloses a system for storing grease in a storage tank for a removal of spent grease from the storage tank. The storage tank includes a heating device which comprises an L-shaped tubular heating device having a heating element inserted into it (abstract). In one possible embodiment, thermostatic means would be used to control the temperature of the heated grease as a safety measure, wherein a thermostat is connected to the heater element to prevent overheating of the grease (column 3, lines 43 to 47). The present application does not use any L-shaped tubular heating device. Furthermore, the present application uses two thermal sensors instead of one thermostat as mentioned in Onken.

Ariolfo discloses a level measuring device for liquids, particularly for controlling lubricant level in internal combustion engines. This technical field is completely different from the technical field of the present application. Therefore, one skilled in the art would not consider this reference when solving the underlying object of the present application. The level measuring device for liquids uses two sensors (6, 7) connected in an electrical measuring circuit (11 to 16) which, depending on the difference between the temperature levels detected by the two sensors, permits the identification and signalling (16) of the occurrence of a situation in which the dissipation by the liquid of the heat generated by the heat element (5) is reduced as a result of the lowering of the level of liquid (abstract). This manner of operation or structure cannot be found with the present application.

Frates discloses an apparatus for liquefying material in the form of an unloading device which includes a platen which may have a one-piece or two-piece structure. The platen preferably includes a plurality of fins, with the openings between the fins communicating with a plurality of flow passages in the platen and a plurality of channels also communicating with the flow passages and located interiorly in the platen behind the fins (abstract). Such a structure is not disclosed or claimed by the present application and therefore this citation seems to be irrelevant to the present application.

The application in its amended state is believed to be in condition for allowance. Action to this end is courteously solicited. However, should the Examiner have any comments or suggestions, or wish to discuss the merits of the application, the undersigned would very much welcome a telephone call in order to expedite placement of the application into condition for allowance.

Respectfully submitted,

Robert W. Becker, Reg. 26,255
Attorney for Applicant(s)

ROBERT W. BECKER & ASSOCIATES
707 State Highway 333, Suite B
Tijeras, New Mexico 87059

Telephone: 505 286 3511
Telefax: 505 286 3524

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